

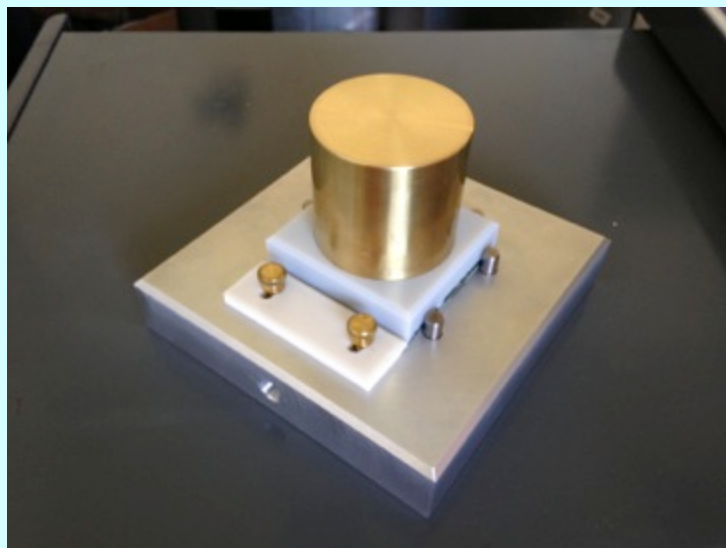
PHENIX WEEKLY PLANNING



Aug. 29, 2013
Don Lynch

This Week

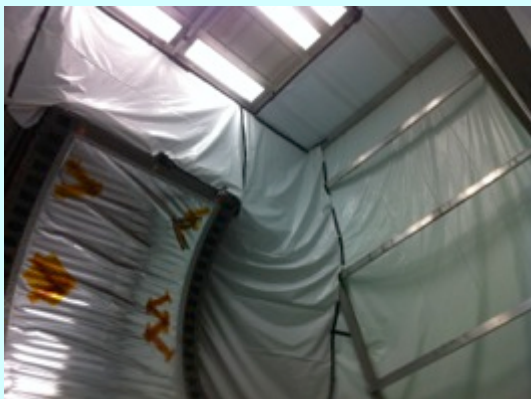
- Continue VTX Repairs/Upgrade
- Continue building VTX strip-pixel staves
- MPC-Ex installation prep
- MuTr Stations 1,2,3 South and Stations 2 & 3 North
continue troubleshooting and repairs
- Finish DC West Repairs
- DC East manlift training; begin repairs;
- Continue sPHENIX support
 - HCal prototype
 - EMCal prototype design continuing
 - Receive Hcal steel
 - Hi-Bay ESR



8/29/2013

Next Week

- Finish MuTr Station 1 S, Stations 2 & 3 N & S troubleshooting & repairs; Begin disassembly
- Continue VTX Repairs/Upgrade
- Continue building VTX strip-pixel staves
- Continue MPC-Ex installation prep & design/fabrication of assembly fixtures & components
- Continue DC East repairs
- Continue sPHENIX support
 - HCal prototype
 - EMCal prototype design continuing
- Future IR evolution modeling



VTX/FVTX repairs/upgrades

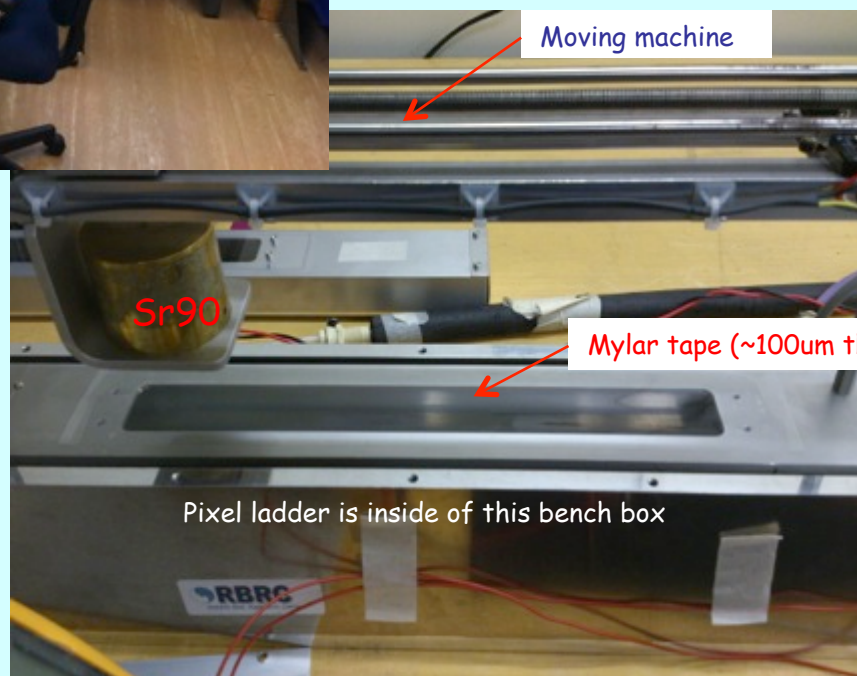
TECHNICAL SUPPORT ROOM



All stripixel stave cores to be received by end of this week

Building staves to continue to ~ 9/15

Remaining pixel ladders to be received from Japan by 9/15



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VTX & FVTX Remaining Tasks

- Receive remaining strippixel stave components
- Assemble & test strippixel staves
- Integrate staves & electronics & test
- Receive remaining pixel ladders
- Test pixel ladders
- Assemble East & West VTX & test
- Transport FVTX to Chemistry building.
- Integrate FVTX Integrated into East & West VTX.
- Survey VTX/FVTX assembly
- Transport VTX&FVTX assembly to PHENIX and install on rails.
- Re-install coolant and N₂ lines, LV, signal and HV cables and fibers
- Re-survey full detector in IR
- Re-commission VTX & FVTX

DC East & West Repairs/Upgrade

DC West repairs complete?

May need to repair broken wires later

(need to take down station 1 scaffolding to Move West Carriage)



Getting started on DC East



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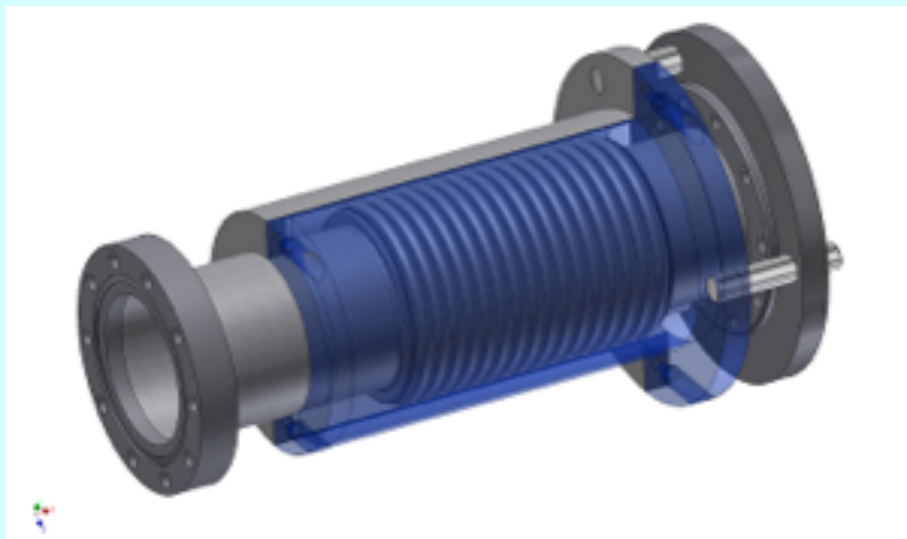
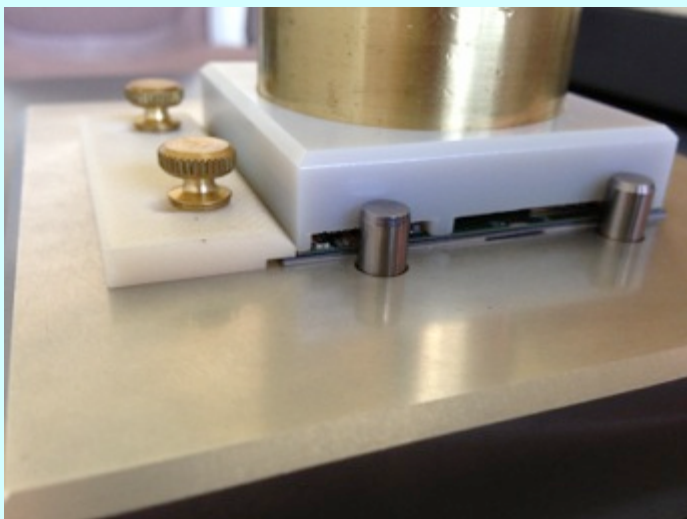
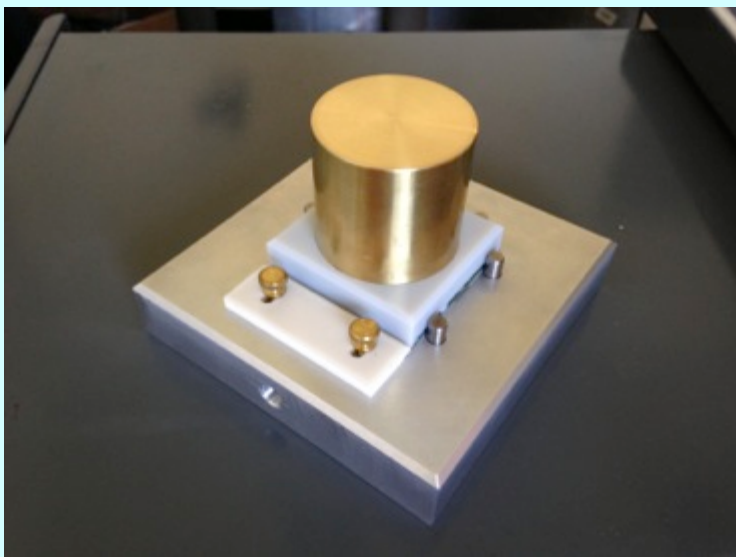
Manlifts received trained completed

DC East & West Repairs Summary of Tasks

- East Carriage move to AH - Done
- Work Permit - Done
- Design & Construct tent (similar to tent constructed for DC West last year) to prevent foreign material from entering DC East cavity while window is removed. - Done
- CAD to provide 2 vertical manlifts to allow DC experts to remove and replace window - Done
- Get supplies and materials from Stony Brook for window replacement - Done
- Troubleshooting and repairs on DC West - Done
- Supply Gas, DAQ and Electric to EC East - Done
- Isolate and repair leak on DC East
- Remove and replace window
- Isolate and repair leak under electronics card
- Leak test
- Operational tests
- Remove tent and manlift

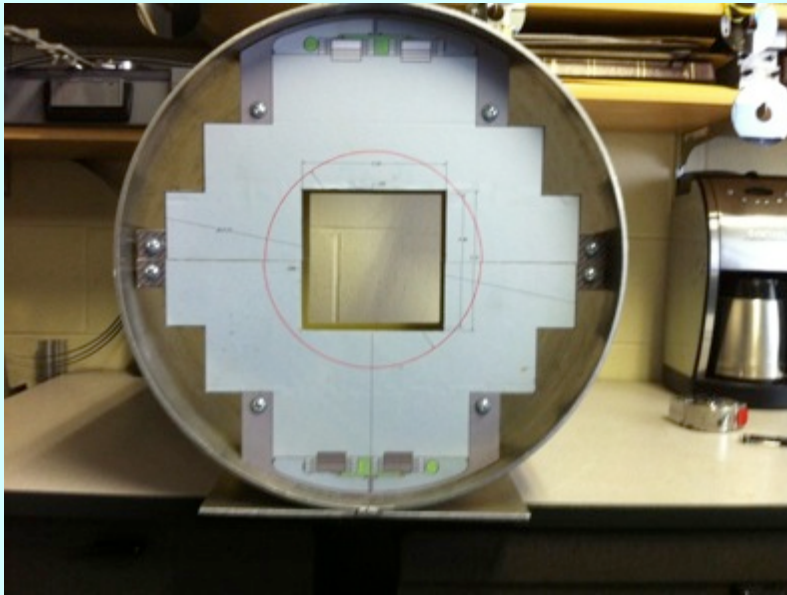
MPC-Ex Initial (Partial) Installation

PHENIX - PROTON SOURCE

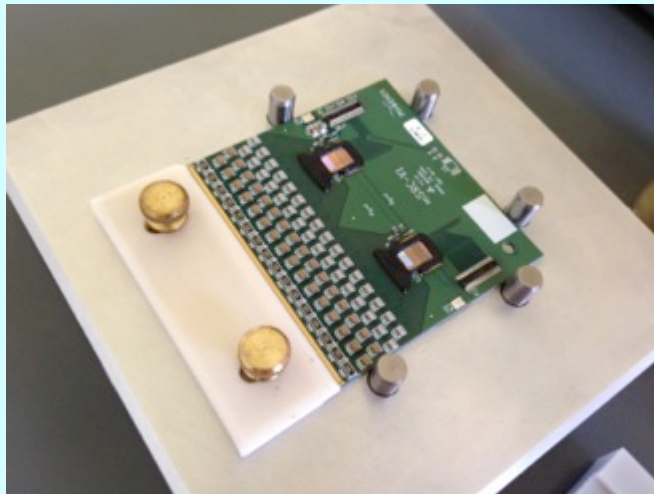


Design vacuum bellows anti-squirm in MPC S Cavity to accommodate MPC-Ex. Parts now at CS for fabrication Ready to be picked up

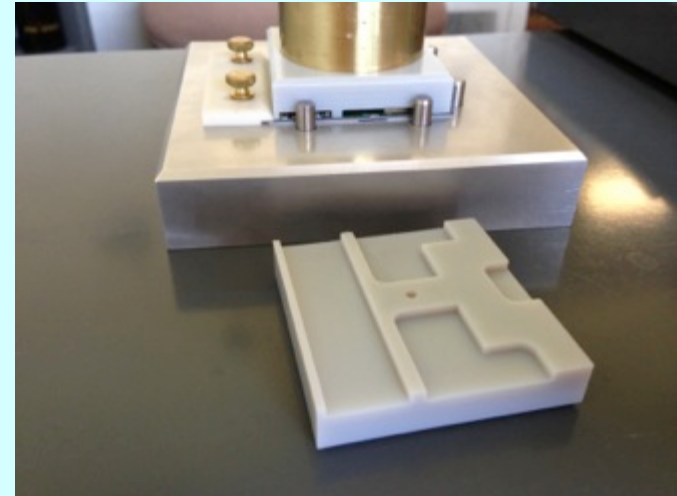
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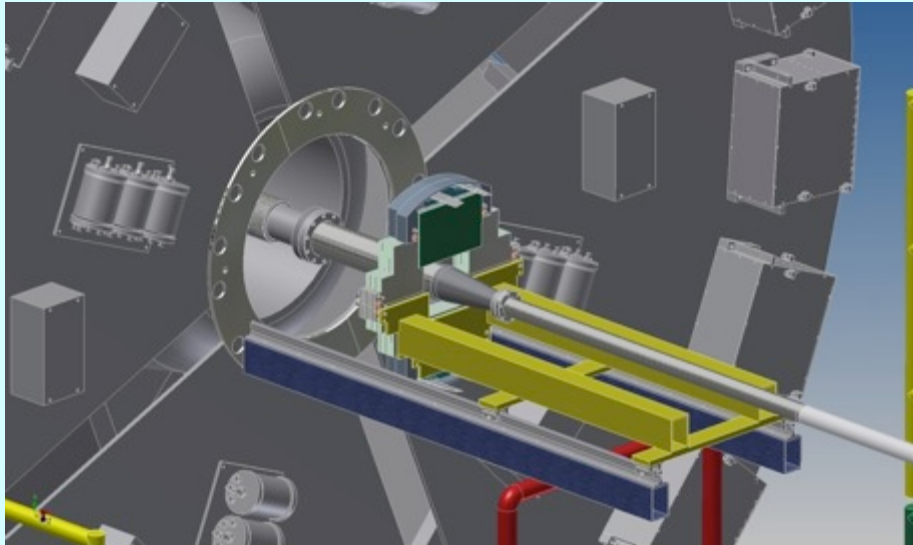
MPC-Ex mockup to be used for cable and utilities routing plans



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PHENIX - SDAOAT - NORM



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MPC-Ex Initial/Partial Installation Summary of Tasks

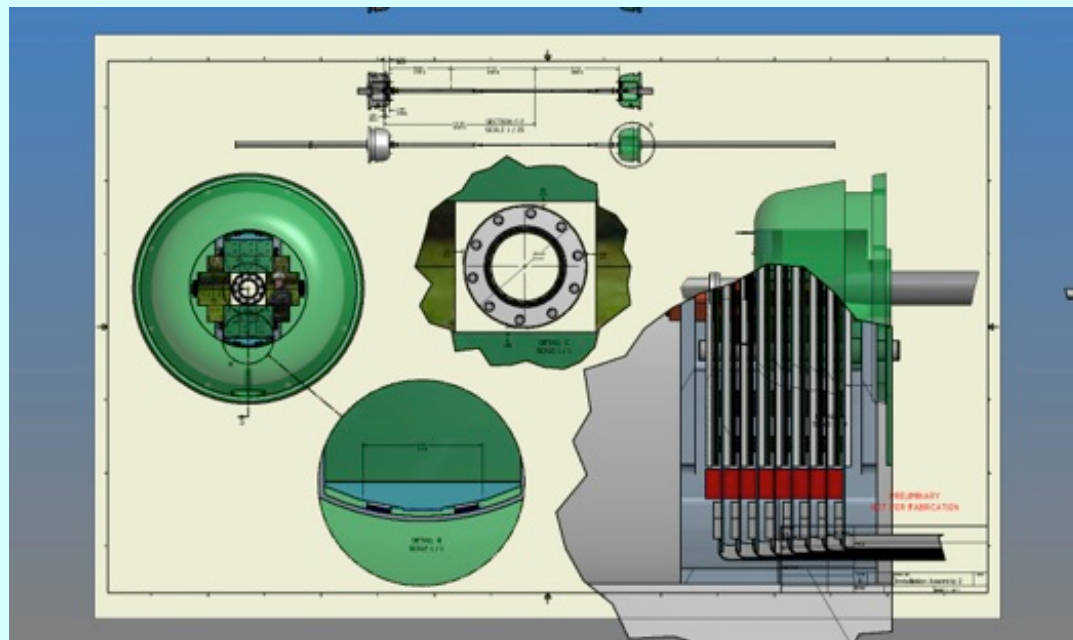
Installation Schedule 11/1-11/15

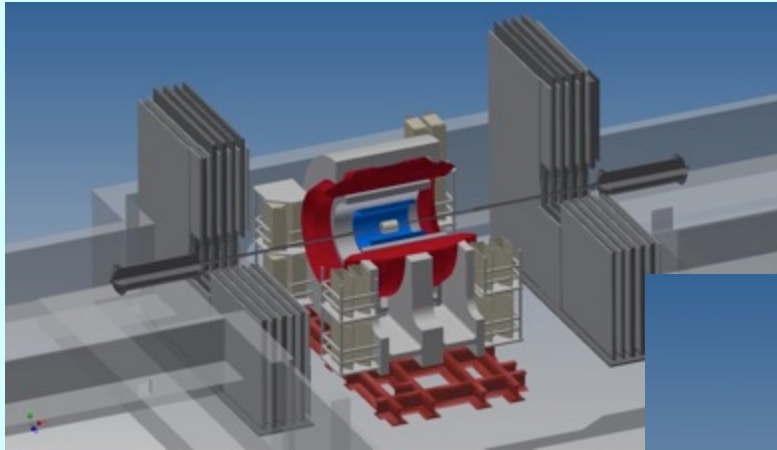
Design assembly, support
and installation fixtures

Assemble and bench test

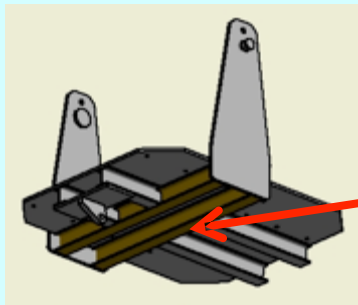
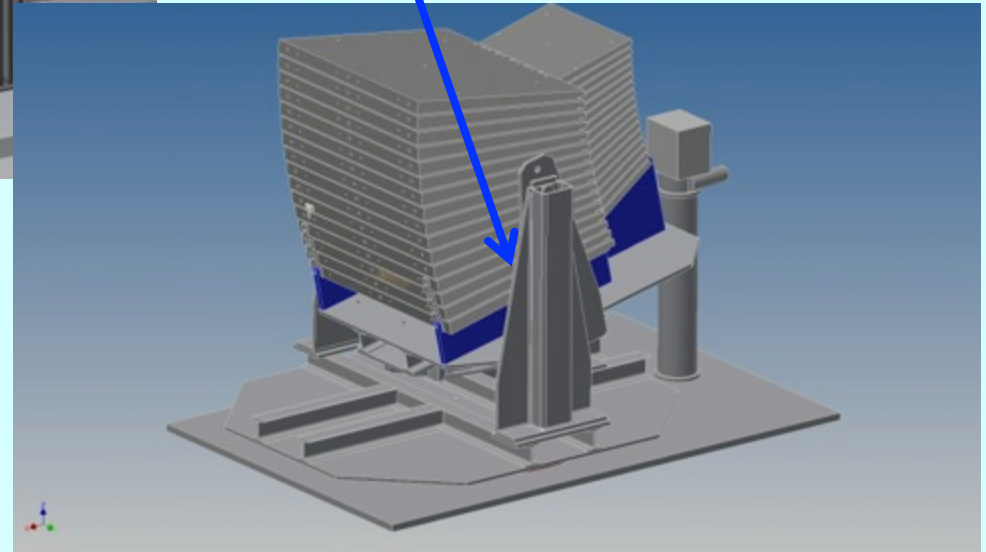
Install

Performance tests





Added reinforcements to support columns to prevent buckling

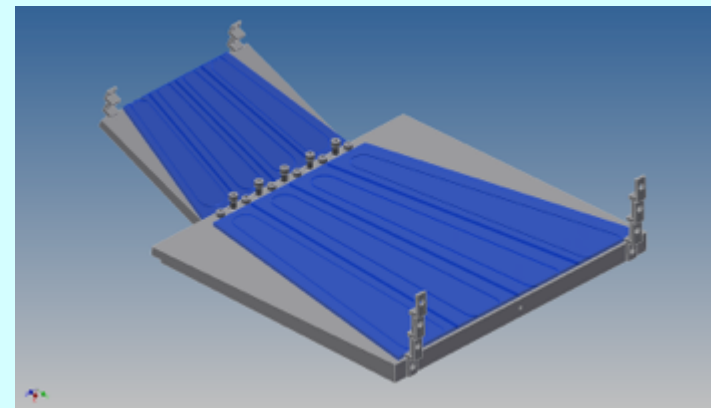


I-beams added to base to stiffen

Hcal prototype component procurement is underway:

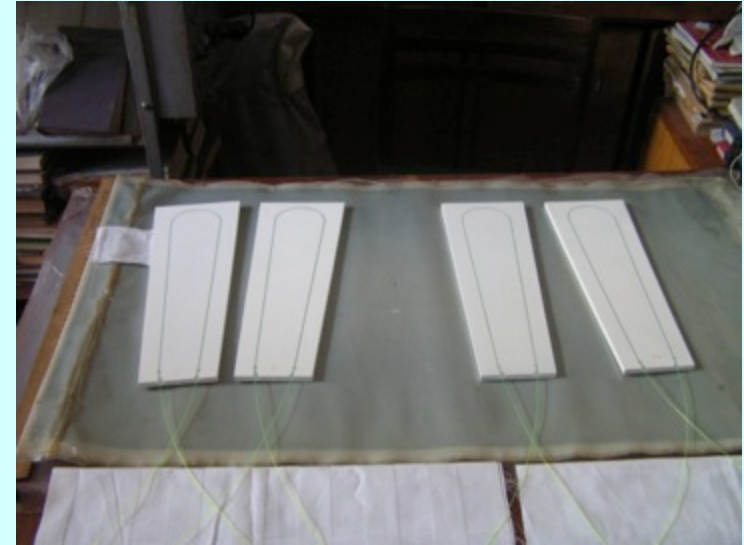
Steel received and scintillator procurements in progress

Tilting, rotation fixture design complete to be sent to shops for fabrication this week

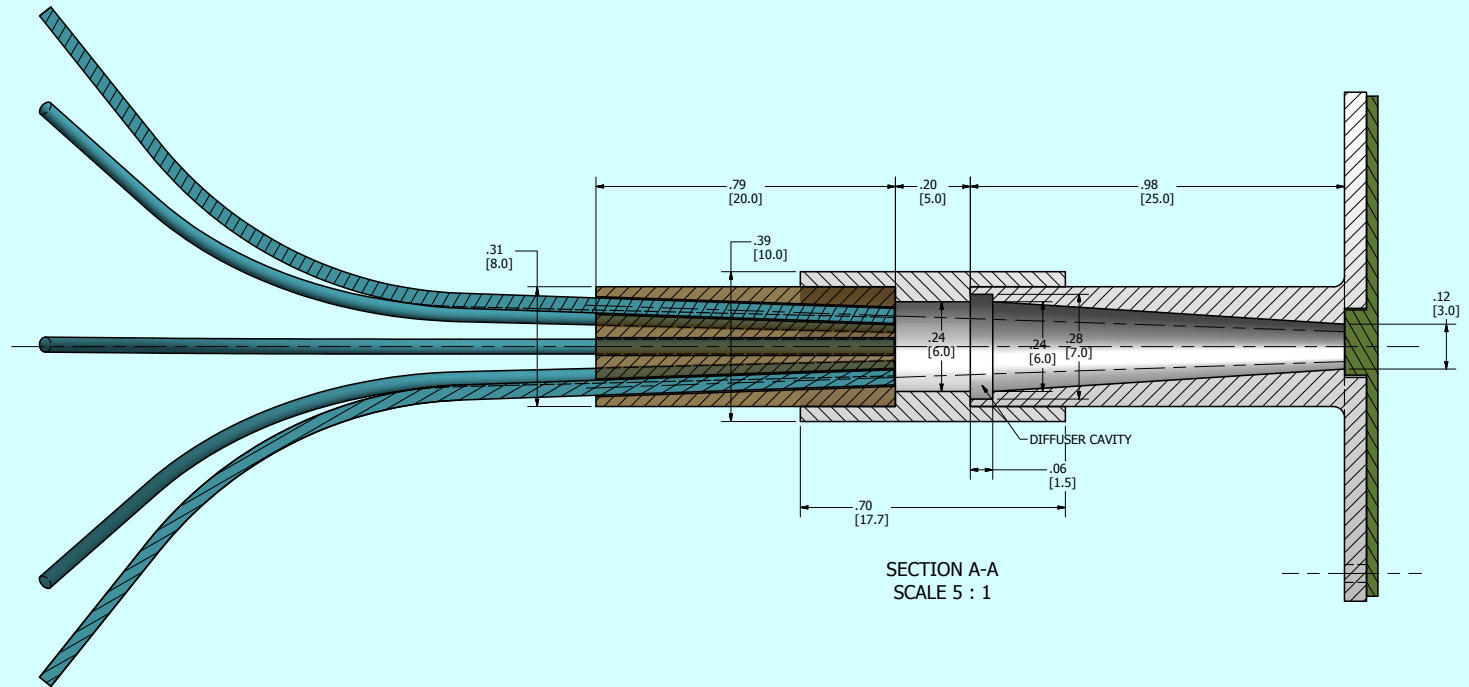


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PHENIX - 3D PRINTING



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sPHENIX Prototype Assembly and Test Tasks

TECHNICAL SUPPORT NOTES

Design Hcal and EMCal Prototypes and support components and shipping crates - **in progress**

Procure materials and detail parts - **in progress**

Receive and inspect parts

Assemble prototypes

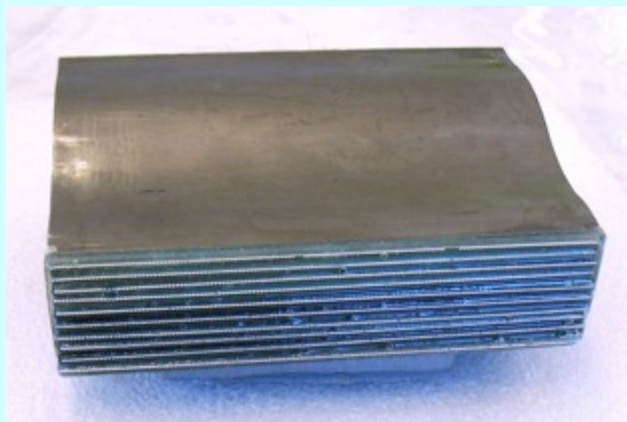
Test assemblies for mechanical fit and function

Package and ship prototypes to FERMI Lab for performance tests

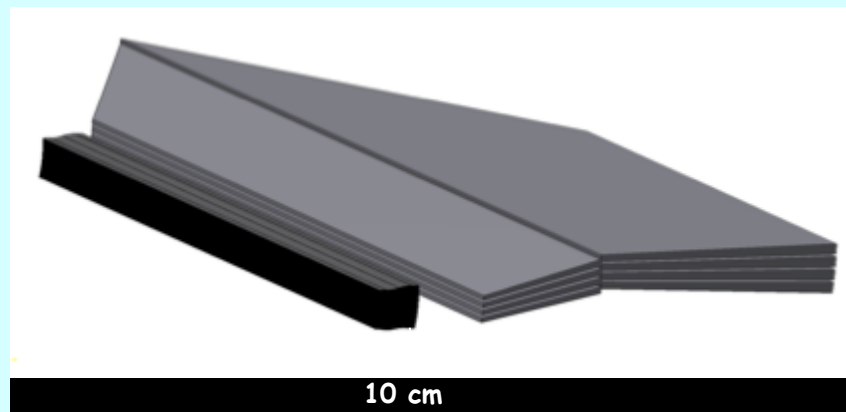
Test and Evaluate at Fermi Lab

EMCal Prototype

Prototype accordion plates with fibers produced as part of SBIR. EMCal for test beam will be flat tapered plates



Prototype "Egg Carton" light collection

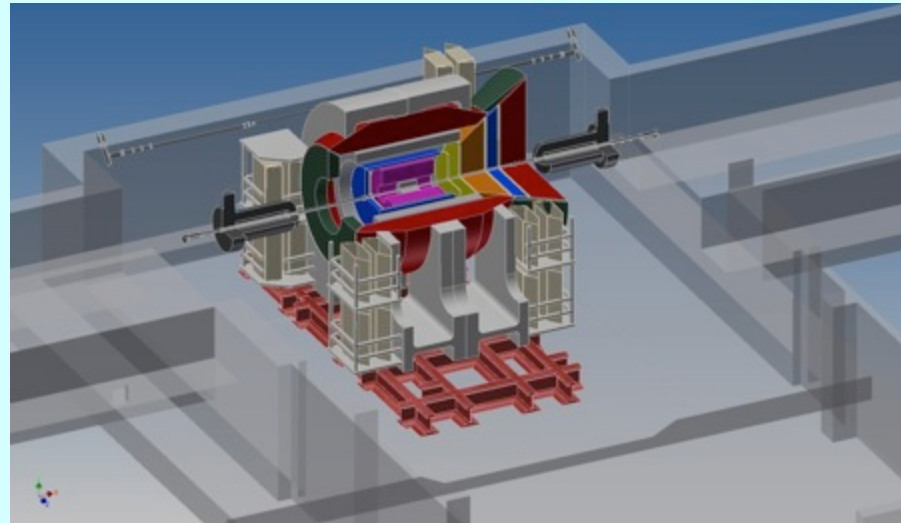
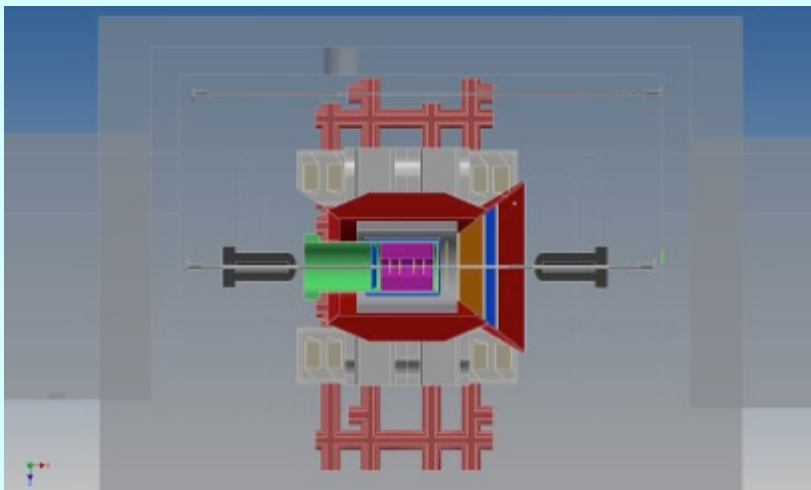


Proto-type EMCal in front of proto-type HCal

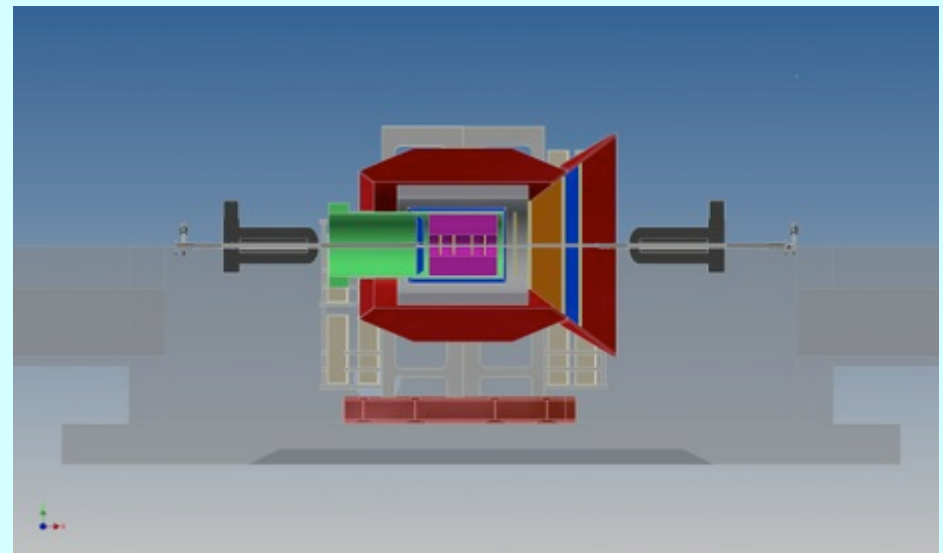
(Photos from Eric slides, from Craig and Sean slides)

ePHENIX

Plan View

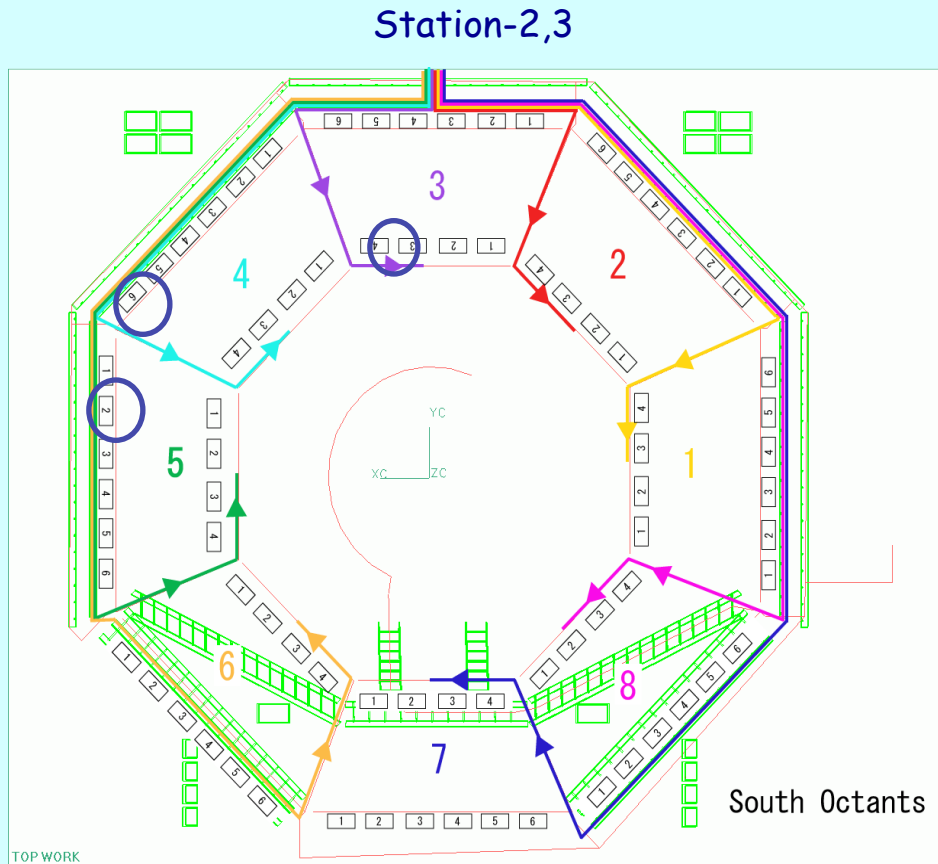


Elevation View

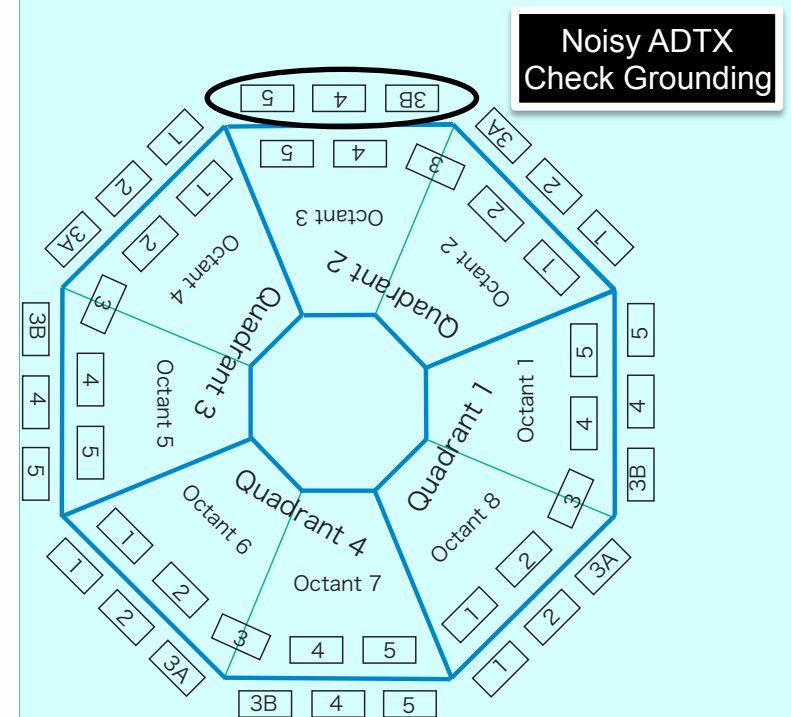


MuTr South Arm Areas to be accessed

PHENIX SOUTH NOISE



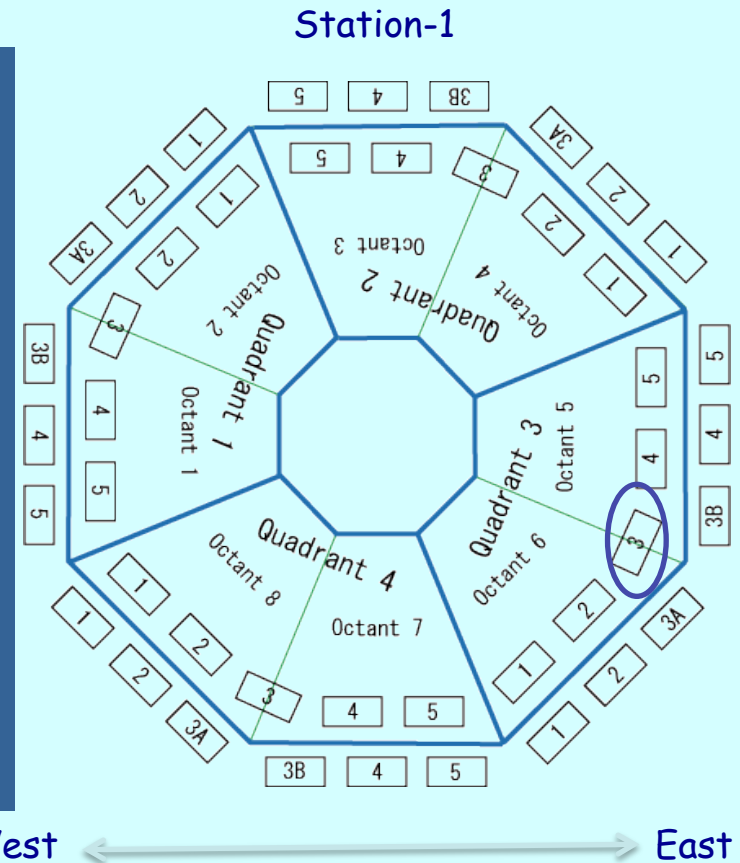
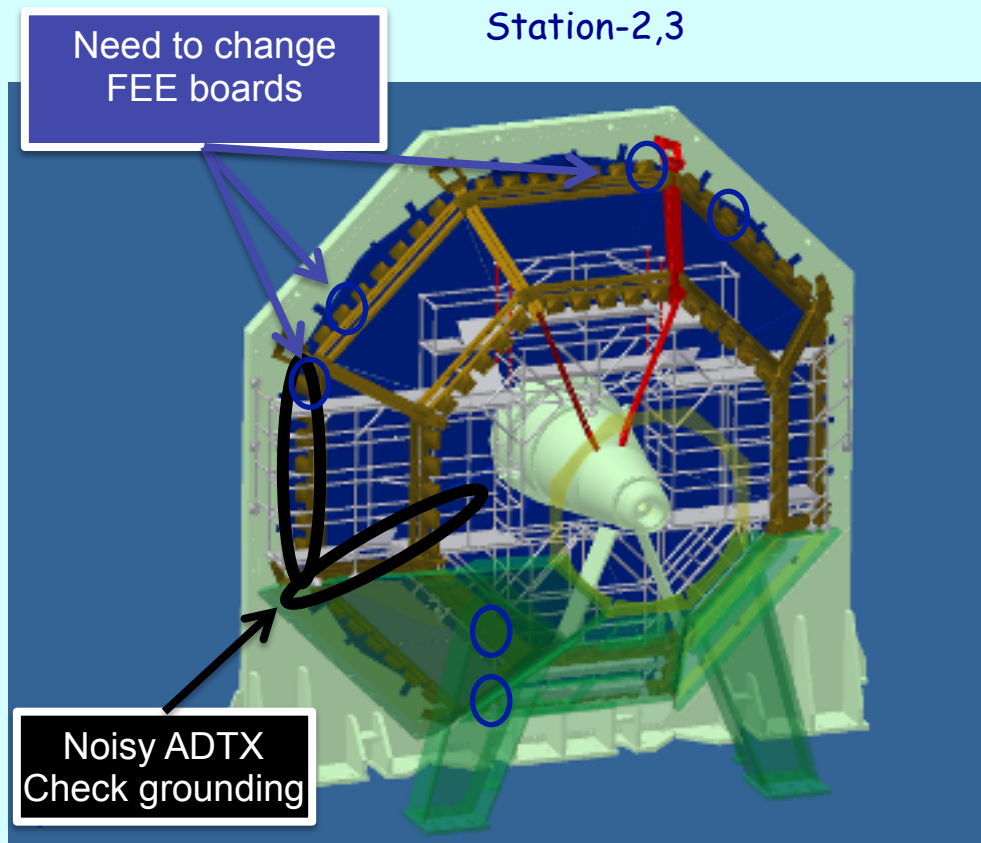
South Station-1 Chassis



Work proceeding MuTr experts expect to finish this week?

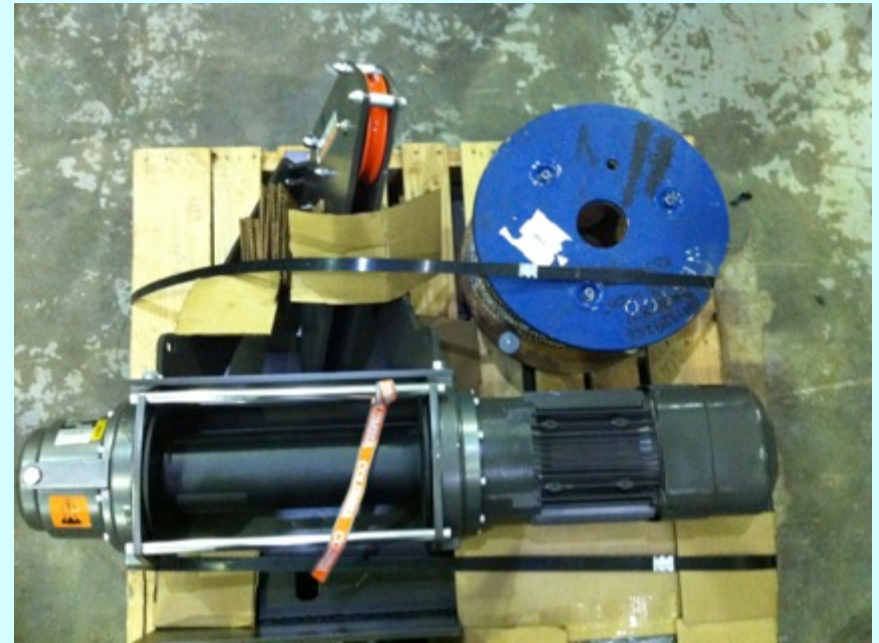
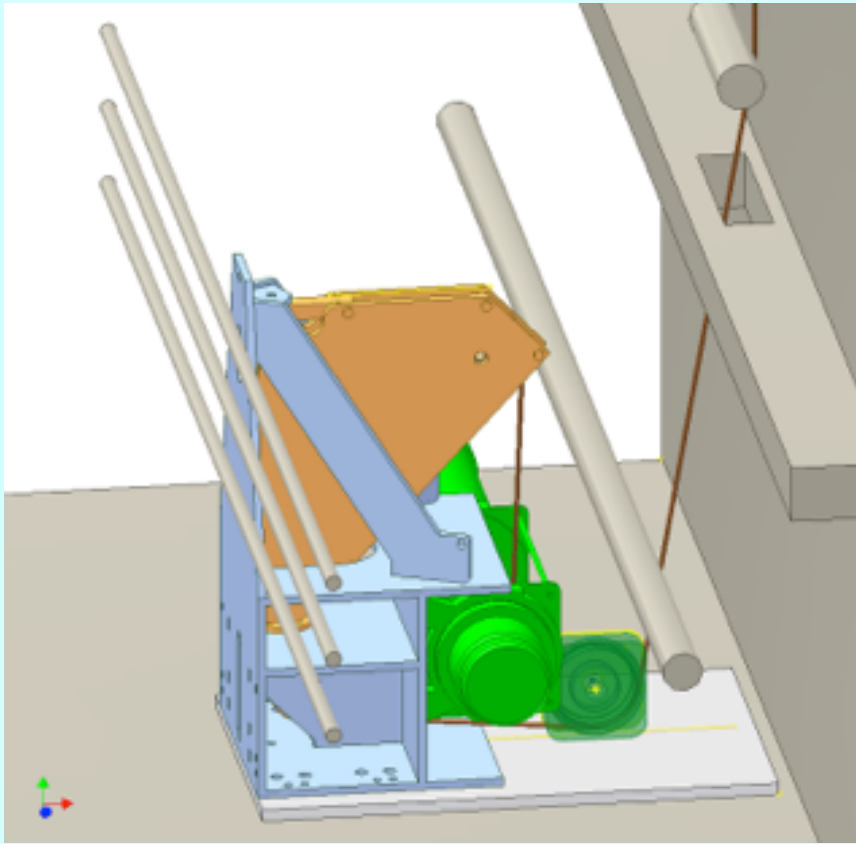
MuTr North Arm Areas to be accessed

PHENIX NORTH ARM



This area will not be accessed during 2013 shutdown.

Window Washer Winch Upgrade



Winch Received, coordinating, Hynan declined to inspect prior to installation

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Window Washer Winch Upgrade Summary of Tasks

Receive and Inspect winch and components - **Received**

Design and Fabricate Winch & Sheave Base

Install and test Winch, integrate with window washer hardware, controls and power

Final Inspection and approval of window washer upgrade

(Note: remote safety pin insertion and retraction was installed and has been in operation since the start of run 13.)

On hold until West Carriage can be opened

Alcohol Chiller Work For Shutdown 2013



Merlin Chiller

➤ Chiller supplied about ½ the flow as in the past.

- Pressure on chiller says ~70-80psi
- Install gauge on supply line and measure actual output pressure.
- Replace chiller with spare if needed.
- Send old chiller out for maintenance or replace.

Done?

Re-Insulate Glycol lines



❖ Remove old polyethylene insulation and wrap and replace with foam rubber insulation.

- Temp of fluid is affected too much by temp change in the gas house.
- Lines are condensing and dripping because of gaps in insulation.

Locate and fix Glycol Leak.



- Replace all three flow meters (compatible with Propylene Glycol)
 - switch to Visi-Float (VFA) for better compatibility
- Redo connections (replace fittings) behind flow meters
 - Re-insulate all cold lines with foam rubber insulation.

- ZDC Remove, Test, Recalibrate



2013 Shutdown Schedule

TESTING - SCHEDULE - WORK

Prep for 2013 shutdown	Done
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
VTX Strippixel redesign	Done
VTX Strippixel 1 st article stave assembly	Done
VTX Strippixel 1 st article qualification/performance tests	Done
VTX strippixel stave production	5/20-9/20/2013
VTX Strippixel sensor reclamation	4/1-8/20/2013
VTX Strippixel ladder assembly & Test	7/15-9/27/2013
Pixel Ladder repairs	4/1-9/20/2013
Run 12 Ends	Done
Shutdown Standard Tasks	Done
• Open wall, disassemble wall, Remove MuID Collars	
• Move EC to AH, etc.	
VTX/FVTX Post run tests	Done
Disassemble VTX/FVTX services	Done
July 4 th Holiday	Done
Remove VTX/FVTX and transport to Chemistry Lab	Done
Remove Lampshade MMS, East Vertical	Done
Assemble, Test and Install MPC-Ex (Partial, location TBD)	7/22-10/1/2013

TECHNICAL SUPPORT NOTES

MuTR Troubleshooting, maintenance and repairs	7/22-9/27/2013
Summer Sunday (8/4) Prep and teardown	Done
Summer Sunday (RHIC)	Done
DC West troubleshooting & Repairs	8/5-8/30/2013
DC East Window Upgrade and Related Repairs	8/10-9/27/2013
sPHENIX HCal Prototype Assembly/test	8/19-10/15/2013
Labor Day Holiday	9/2/2013
Re-assemble VTX/FVTX halves	8/19-10/14/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/14-10/21/2013
Install & Survey VTX/FVTX in 1008 IR	10/21-11/18/2013
VTX Commissioning	11/18-12/9/2013
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
TBD prototype tasks	As required
Pre-run commissioning and prep for run 14	11/1-12/31/2012
Veterans Day, Lab Holiday	11/11/2013
Prep for EC roll in	11/1-11/9/2013
Roll in EC	11/10-11/12/2013
Prep IR for run	11/1-11/30/2013
Thanksgiving Holidays	11/28-29/2013
Pink/Blue/White sheets	12/14-12/31/2013
Christmas Holiday	12/24-25/2013
New Year's Day Holiday	1/1/2014
Start run 14	1/2/2014

Safety and Security

From Ray Karol:

If you haven't done so yet, please go to CAD lobby and sign the annual work permits for yellow tagged ladder use (for anyone who climbs ladders at PHENIX) and the RWP for ducking under the beam pipe in the tunnel (for anyone who needs to go into the tunnel, e.g. RPC3 workers).

Holiday weekend coming: make sure your offices and all doors at PHENIX are secured and locked.



Safety and Security

No Statistics & Incident Report this week,

But from the Safety Web Page 1 new DART and 2 new TRC's since the last report:

Aug. 20: An employee was walking in a hallway and fell, causing bodily injury. At the ER, prescription medicine was given and the employee was instructed to stay home until 8/22/13. This is recordable due to the prescription.

July 30: A subcontractor employee lacerated two fingers while installing a metal door. In a local ER, he received sutures in both fingers and returned to work on restrictions. This meets the criteria for recordability due to the sutures, prescription medication and lost time.

TECHNICAL SUPPORT TEAM

Where To Find PHENIX Engineering Info

Lab Holiday Next Monday: Labor Day

Labor Day, the first Monday in September, is a creation of the labor movement and is dedicated to the social and economic achievements of American workers. It constitutes a yearly national tribute to the contributions workers have made to the strength, prosperity, and well-being of our country.

New York - first state to introduce a bill for labor day -1887, but Oregon was first state for it to become law.

By 1894 23 more states enacted laws until on June 28, 1894 it became Federal Law with 1st Monday of September established as date.

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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